

Maine Dairy Cost of Production Studies 2005 Survey Results

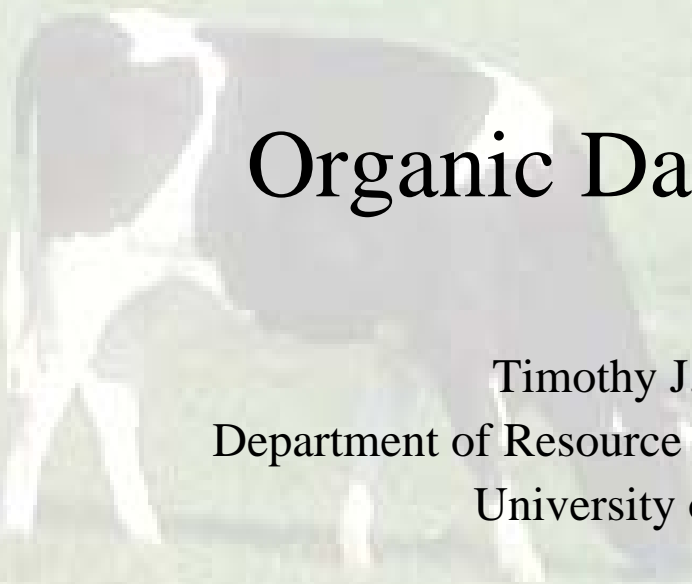
Regular Updating

Organic Dairy COP

Timothy J. Dalton

Department of Resource Economics and Policy

University of Maine



Background

- Maine Milk Commission sponsored studies
- Survey-based
- Every 3 years
 - 2002 (2001 production year)
 - 2005 (2004 production year)
 - *2008 (2007 production year)*
- Regular updating using USDA price indices

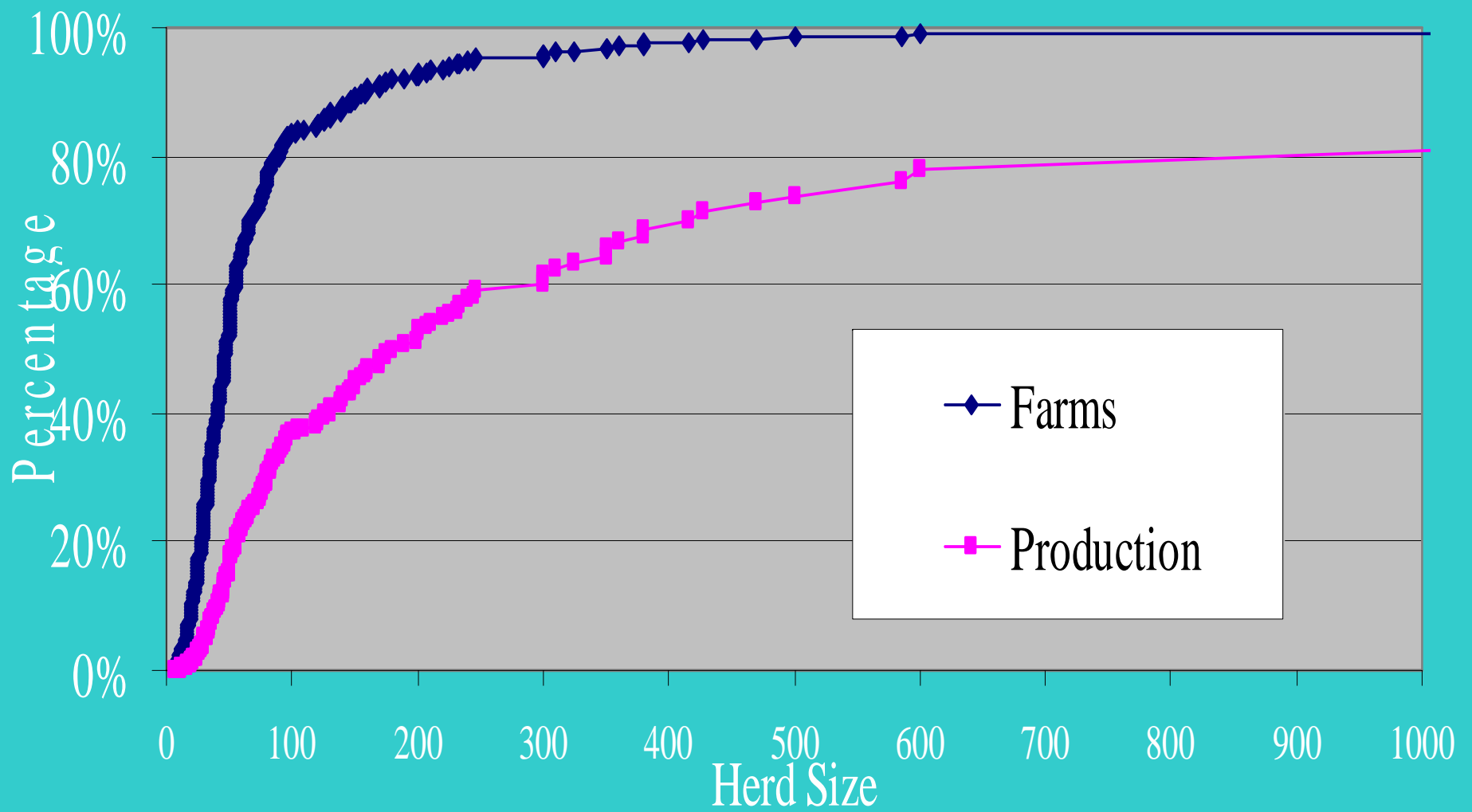


2005 Survey response:

- 320 surveys distributed to traditional dairy producers actively farming in 2004.
- 93 survey responses received.
- 29% response rate.

Comparing response rate: 2002 to 2005

	2002	2005
Total number of surveys distributed	397	320
Responses received	109	93
Response rate	27%	29%



Clustering

- Homogeneous groups of farm “types”.
 - Four groups (small, medium, large, and state)
 - Drawing comparisons is not advisable
- Selected nine characteristics:
 - Number of dairy cows
 - Annual milk shipped
 - Revenue from milk sales
 - Revenue from livestock sales
 - Milking system
 - Pounds produced per cow
 - Pasture usage
 - Importance of pasture as a source of feed
 - Importance of off-farm income



Descriptive characteristics of farms by size

	Small	Medium	Large	State
Production				
Milking herd (#)	55	163	304	123
Parlor system	No	Yes	Yes	No
Rolling herd average (lbs/cow)	14,901	20,398	21,546	16,128
Pasture utilization	Yes	No	No	Yes
Demographics (years)				
Age	56	59	57	56
Education	12	12	12	12
Tenure	27	29	30	27
Labor				
Full-time laborers (#)	1.8	3.8	6.1	2.7
Off-farm employment (% of farms > 50% of income)	24%	25%	0%	24%
Assets (\$)				
Total	601,000	1,304,000	2,712,000	1,084,000

Source: 2005 Cost of production survey.



Budget Components

- Income
 - Milk, Crop & Hay, Livestock, "Other"
- Variable Operating Expenses
- Overhead
- Fixed Ownership Cost
 - Depreciation
 - Interest

Operating Expenses

- Labor
 - Family
 - Hired
 - Management fee
- Purchased Feed
 - Forage
 - Concentrate
- Livestock Expense
 - Breeding/AI
 - Vet/Medicine
 - Bedding
 - DHIA
 - Insurance

Operating Expense Cont'd

- Crop and Pasture
 - Seed
 - Pesticides
 - Fertilizer
 - Lime
- Maintenance and Equip.
 - Fuel, oil
 - Machinery repairs
- Deductions
 - Marketing
 - Hauling and Trucking
- Operating Interest Expense
 - $\frac{1}{2}$ of annual expense

Operating Expense Categories--Recap

- Labor
- Purchased Feed
- Livestock Expense
- Crop and Pasture
- Maintenance and Equipment
- Deductions
- Working Capital

Overhead Expense

- Property Tax—average rate for producers
- Farm Insurance
- Dues and Professional Fees
- Utilities
- Miscellaneous

Annual Ownership Expense

- Depreciation and Interest
 - Land
 - Buildings
 - Machinery and Equipment
 - Livestock Herd
 - Cows
 - Heifers
 - Calves
 - Bulls

Cost of production budgets and performance measures by farm (\$).

		Small	Medium	Large
Number of Cows		55	163	304
Annual Milk Shipment (cwt)		8,195.5	33,247.9	65,500.0
Annual Milk Shipment (lbs/cow)		14,901	20,398	21,546
		<i>Per cwt</i>	<i>Per cwt</i>	<i>Per cwt</i>
Annual Revenue^a	Total	19.51	20.19	18.13
Annual Operating Expenses				
<i>Labor</i>		6.03	4.54	3.41
<i>Purchased Feed</i>		4.36	4.52	4.38
<i>Livestock</i>		1.18	1.38	1.42
<i>Crop and Pasture</i>		0.39	0.51	0.75
<i>Maintenance and Equipment</i>		1.78	1.95	1.83
<i>Deduction Charges</i>		0.96	0.81	0.77
<i>Interest (on 1/2 of total operating expense)</i>		0.27	0.25	0.23
	Total	14.98	13.96	12.79
Annual Overhead Expense	Total	3.22	2.20	2.21
Annual Depreciation and Interest Expense				
<i>Capital</i>		6.99	3.70	4.02
<i>Livestock</i>		1.75	1.82	1.79
	Total	8.74	5.52	5.81
Total Annual Cost		26.93	21.68	20.81
Performance measures		<i>Per cwt</i>	<i>Per cwt</i>	<i>Per cwt</i>
<i>Long-run net return</i>		(7.42)	(1.49)	(2.68)
<i>Short-run return over variable cost</i>		1.32	4.03	3.13
<i>Breakeven Revenue (\$/cwt)</i>				
<i>Long-run to cover all costs</i>		25.67	20.30	19.94
<i>Short-run to cover operating and overhead</i>		16.94	14.79	14.13

^a Revenue includes crop, hay, and livestock revenue in milk equivalents form.

Source: 2005 Cost of production survey.



Average annual on-farm revenue by farm (\$).

	Small	Medium	Large
Milk receipts	149,615	625,416	1,130,602
Milk receipts (\$/cwt)	18.26	18.81	17.26
Crop and hay revenue	1,448	3,700	-
Livestock revenue	8,828	41,998	56,620
Milk equivalents of crop/livestock revenue(\$/cwt)	1.25	1.38	0.87

Source: 2005 Cost of production survey.



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<i>Interest (on 1/2 of total operating expense)</i>		0.27	0.25	0.23
	(2) Total	14.98	13.96	12.79
Annual Overhead Expense	(3) Total	3.22	2.20	2.21
Annual Depreciation and Interest Expense				
<i>Fixed Capital</i>		6.99	3.70	4.02
<i>Livestock</i>		1.75	1.82	1.79
	(4) Total	8.74	5.52	5.81
Total Annual Cost	(5) Total	26.93	21.68	20.81
Performance measures		<i>Per cwt</i>	<i>Per cwt</i>	<i>Per cwt</i>
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Cost difference between the “average” Maine farm and Northern Crescent farm

- Average Maine farm
 - reflects a weighted average budget
 - Milking herd of 89 cows and ships approximately 16,190 lbs/cow
 - Cost per cwt is \$23.40
- Average Northern Crescent farm
 - Milking herd of 71 cows and ships approximately 19,900 lbs/cow
 - Cost per cwt is \$21.76
- What accounts for \$1.64 difference?
 - Higher repair costs
 - Higher property taxes
 - Higher fuel, lube, and utility



Monthly Monitoring and Adjustments

- Cost of Production Updating

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